

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: James Lyons <jlyons@CAM.ORG>
Subject: [3945] Andrew Hair
Message-ID: <199510082124.RAA08715@Ocean.CAM.ORG>

Sorry for the BW!

Andrew, my email to you is bouncing. Did you receive the ONER kit?

Jim Lyons, VE2KN

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: km@PACT.ORG.PE (Kris Merschrod)
Subject: [3939] Bandwidth & thermal noise
Message-ID: <m0t1yZh-000ApfC@rcp.net.pe>

Ok,

There are some sensitive toes out there.

At least no one noticed that I mistyped narrowing!

Nils' question on the source of thermal noise -- guess is that it comes from deleting the hot air in the files that the listserver sends to us!

The last time I raised such a fuss was by suggesting that QRP categories be according to ERP and then by logarithmic categories.

See you at the fox hunt.

Kris

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [3958] CASCADE MOD BULLETIN #3
Message-ID: <Pine.LNX.3.91.951008204445.21457A-100000@dt1.datatamers.com>

Attention all Cascade owners:

You can improve the residual carrier rejection by 8 to 10 dB by simply substituting a metal cover for the fiberglass one on the band module. On my rig the carrier is down a little over 30dB from full power of 9W (75 meters) now. I made my new cover from .060-inch aluminum sheet. Same size

as the old one, same screws (now its a shield!).

72, Dave, W6EMD

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: "Jim Kortge, NU8N" <jokortge@sun.lisp.com>
Subject: [3935] Cascade on 40/17
Message-ID: <9510081502.AA23405@sun>

IT'S ALIVE, IT'S ALIVE!! Fellow Cascaders....I have now completed the rig through section 5 with the 40/17 modifications (more later on details) and it receives well on both bands. I have LSB on 40 and USB on 17. Heard many stations just directly connecting the antenna to U7, pin 1.

I had to make some slight modifications to the VFO circuitry to get the correct frequency ranges, and I'll detail those changes later also.

The audio section seems quite noisy. I am wondering if others have notices that also or whether it represents a defective resistor or capacitor somewhere in the circuit? Feedback would be appreciated.

More later....back to building the band modules and finishing the output section. Maybe I can get it on the air yet today. (Sunday)

72/73....Jim

Jim Kortge, NU8N		Bicycle Mobile Hams
jokortge@lisp.com	__o	of America
Fenton, MI	_\'<	Mizuho 17m/40m QRP SSB
.. .. .	(*)/(*)	

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: JEVERHART@cayman.vf.mmc.com
Subject: [3956] Foxhunt 10-10-95
Message-ID: <951008221049.2100fd90@carib.vf.mmc.com>

Whoa, stop, rewind! I screwed up my message re my foxhunt schedule. It is Tuesday 10-10-95! A word to the wise - don't edit a message while you're talking to your 16 year old son!

Sorry for the wasted bandwidth, and heart attacks 'cause you thought it was

tonight and the time is half gone! The correct message follows:

Fox hunters,

As someone commented the other day, Tuesday night, October 10 it's my turn in the barrel. I will operate on the following schedule:

9:00 pm	- 9:30 pm (EDT)	7.04 MHz +/-for QRM
9:30	- 10:00	7.11 MHz +/-
10:00	- 11:00	7.04 MHz +/-

Note that the times are Eastern Daylight Savings Time. You do the conversion to your local clock!

I'm starting a bit later than some of the other East Coasters to give you folks out west a chance. And I want to get my first 40 meter 6 contact, too!

Novices and those whose code speed is not up to Chuck's standards: Call me at a speed you are comfortable with - I will match your speed. Well... unless you come back at 35+wpm, then you'll have to slow down and match mine!

See you on Tuesday and

72/73,

Joe E., N2CX

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: JEVERHART@cayman.vf.mmc.com
Subject: [3955] Foxhunt 10-8-95
Message-ID: <951008220436.2100fd90@carib.vf.mmc.com>

Fox hunters,

As someone commented the other day, Tuesday night, October 10 it's my turn in the barrel. I will operate on the following schedule:

9:00 pm	- 9:30 pm (EDT)	7.04 MHz +/-for QRM
9:30	- 10:00	7.11 MHz +/-
10:00	- 11:00	

Note that the times are Eastern Daylight Savings Time. You do the conversion to your local clock!

I'm starting a bit later than some of the other East Coasters to give you folks out west a chance. And I want to get my first 40 meter 6 contact, too!

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See you on Tuesday and

72/73,

Joe E., N2CX

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: hysell@kodak.com (John D. Hysell)
Subject: [3938] help with Cascade - section 4
Message-ID: <9510081712.AA09536@runner.itc.Kodak.COM>

Well, I got my kit Friday, and proceeded to build it this weekend. All was fine through the first 3 sections. I have finished section 4, but now have a problem showing. Up to this point, the current draw has been trivial (under 50ma). With the insertion of the UPC2002 amp, the current draw has skyrocketed, and if I don't shut off quickly, the amp gets VERY hot. (Not warm to the touch as suggested in the manual). I have inspected for solder bridges (don't see any) and incorrect parts (ditto). If I pull the UPC2002 out of the circuit, the current load is normal (50ma again).

I do get a nice hum through the speaker mic with the amp in place, but it shouldn't draw that much juice...

So; any ideas where to look? How is the amplification factor set for the amp? by R25? Is that really supposed to be 2.2 Ohms? Is R67 really 1.1 Ohms?

Is there much chance that the UPC2002 is the culprit, and if so, are any spares available?

Thanks for any ideas.

73 -John

KF2XC

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: etillona@interserv.com
Subject: [3960] HW SP99 Forsale
Message-ID: <9510091300.AA15615@m1.interserv.com>

I have a Heathkit SP-99 speaker which matches the HW-9 QRP Rig. It is in excellent condition. Asking \$30.00 and I will pay shipping charges. You can reach me via E-MAIL or tel: (516) 696-0610.

* Emil J. Tillona	* Ham: KD1F
* email: etillona@interserv.com	* QRP ARCI 8328
* Cluster: KD1F Node	* President Radio Central
* Packet: KD1F@KC2FD.NLI.NY.USA.NA	* Amateur Radio Club

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: rheiss@tuba.aix.calpoly.edu
Subject: [3959] HW-8 Typical Power Output
Message-ID: <9510090540.AA80592@tuba.aix.calpoly.edu>

An overachiever? The following is my stock HW-8 transmitter measured into a 50 ohm dummy load with a calibrated scope:

80m: 2.9 W
40m: 2.0 W
20m: 1.8 W
15m: 1.4 W

I think this is fairly typical with a 14 Volt regulated supply. Your mileage may vary, especially if your source of "12 Volts" is more like 12.0 Volts. I've given up using 12 Volt batteries with my unit. Not only is the power output reduced sharply, the rig also acts sick as the battery drains down near 11 Volts. Now I connect up 18 to 24 Volts worth of batteries through an LM317-based 14 Volt regulator circuit similar to the AC supply. With this setup the HW-8 runs consistently well and is still fun to use.

73, Rob K06KA
rheiss@tuba.aix.calpoly.edu

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: adam@philadelphia.libertynet.org (Adam O'Donnell)
Subject: [3934] I charged the Gell-Cell!!!
Message-ID: <9510081504.AA01031@philadelphia.libertynet.org>

I finally figured out a safe, yet slow, way to charge my Gell-Cell.

I have an HT from my Tech no-code days (hehe... I had soo little bandwidth back then... If there is anyone who has the plus on this list, definitely

upgrade to the general... I'm rambling again. I keep on telling myself not to ramble... <smack> no rambling <smack> no rambling... maybe I should just take my pills...) that has a drop in battery charger. I took a good look at the charger with a DVM. There are three charging pins: one delivers 14.8v, another delivers approx 8.3v, and another is the return.

I hooked up the 12.8v line and the ground to the gell cell, let it sit over night, and the damned thing charged a whopping .8v. The charger is delivering 70mA to a 7Ah pack. So... by next week, it should be done.

72

--

Adam O'Donnell, N3RCS
Amsat: N3RCS@AMSAT.ORG
Internet: ADAM@LIBERTYNET.ORG

"I want to know how God created this world. I am not interested in this or that phenomenon. I want to know His thoughts, the rest are details."

-- Albert Einstein

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: RobCap@aol.com
Subject: [3961] KC-1 works w/ Gary Breed Xcvr
Message-ID: <951009092929_72258911@mail06.mail.aol.com>

Hi Folks:

I have enjoyed using my KC-1 with my OHR-400 so much that I have built one into my Gary Breed transceiver. This is the radio marketed by A&A kits and 624 kits, as featured in QST and in the ARRL handbook.

Here is how I interfaced the KC-1:

Mounting: Drilled two holes into the cover of the radio to hold the momentary switches. The holes are to the right of the speaker, and behind the fine tune pot.

R1: A 10K speed control pot was mounted directly above the Fine pot on the front panel. The left hole from R1 on KC-1 board goes to left lug on R1 panel pot that is closest to the tuning pot. Center hole from R1 goes to center lug on R1. Right lugs are not used.

CV- 33 pF

CA- .01 uF

RA- 1 Million Ohms

V. Connected to the VFO pin on the oscillator board (the front board), which connects the VFO to the transmitter board. Used a six inch length of RG-174U for this purpose.

AF- Route to 1 M ohm RA, then to wiper lead of audio pot on front panel of.
CA goes from this lug to ground, or on the board between the wiper wire and the ground wire of the three wire group that goes to the audio pot.

Programming: o3A000

Voila! Frequency data and memory keyer with a single push of the button!
(Replacing a simple iambic keyer installed in the radio).

This series of part substitutions provides accurate frequency data, and a pleasing audio level from the KC-1, which can be altered with the rig's audio level pot.

73,

Rob, WA3ULH

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: paxton@sound.net (frank paxton iii)
Subject: [3944] need help - s-meter and SWL 40m xcvr.
Message-ID: <199510082029.PAA09446@sound.net>

the small wonder (nn1g) 40m xcvr doesn't have agc ...

the enclosure i'm using ALREADY has an s-meter in it ! i'd like to use it.
any idea how i could do it ? specific suggestions needed.

frank

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            (o o)
-----o00---( )---00o-----
| fRaNk pAxToN iIi ng0n (816) 361 - 8661 |
| << voice, message or fax >> |
| e-mail: paxton@sound.net |
| web: http://www.sound.net/~paxton |
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-----'

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: SHUSTER5647@delphi.com
Subject: [3943] OHR Group Purchase coordination
Message-ID: <01HW7ASHX2FM8Y9V9L@delphi.com>

To All:

Since I announced the discount available from OHR and there has been solid response from a number of people, I volunteer to coordinate/negotiate this deal. I'm going to call Dick and work things out with him, then I'll post a message with all the details, instructions, and discounted pricing. Sound OK?

To make things quick and easy, I'll send a final list of people and their purchases to OHR. I'll arrange that all checks and credit card numbers go straight to OHR. Merchandise will ship when he gets the minimum commitment, (i.e. when 10 of the 14 people get their money to him kits start to ship).

It's Sunday, just after high noon here in the Puget Sound area. I'll try to get through to Dick today and post a complete message with discounted pricing, S/H, etc., when the deal is worked out.

I already have a OHR400 and it's great, but I want to get a QRP Wattmeter Kit - at 20% off!

73'\$

John Shuster
Senior Account Executive
Abbott Diagnostics Division

KC7CKP ARCI/8951

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: JessQRP@aol.com
Subject: [3950] Q dope substitute
Message-ID: <951008192455_39473509@mail02.mail.aol.com>

I will add my 7.2 cets worth. Try hot melt glue. I have used this on several

of my rigs, and it seems to work great, plus as an added benefit, you can peel it off if you make a mistake!

Best
Jess

From qrp-l@lehigh.edu Mon Oct 9 11:35:00 1995
From: jlowman@iepsnet.com (Jim Lowman)
Subject: [3940] QRP - popular frequencies for each band?
Message-ID: <199510081752.NAA23007@nss2.CC.Lehigh.EDU>

I am now the proud owner of a mint-condition QRP Plus rig, and am looking forward to getting active on the HF bands in this interesting mode, after an absence of many years.

I have been following this list for some months now, which has provided a lot of good info, as well as getting me hooked on QRP. For this reason, I apologize for the repeat question and the bandwidth, but I wonder if someone could provide a list of commonly-used QRP frequencies for each band?

Thanks in advance...Jim - KF6CR

From qrp-l@lehigh.edu Mon Oct 9 11:35:00 1995
From: paxton@sound.net (frank paxton iii)
Subject: [3936] rockloop - will it tune 40m ?
Message-ID: <199510081514.KAA05906@sound.net>

what are the tuning possibilities on the rockloop antenna as shown on the qrp-l home page ? (loop.gif)

any suggestions for putting it on 40m would be appreciated(ya ya ya..make a bigger loop...how MUCH bigger ? double size ? change the capacitor ? what value ? this loop might look good on my ceiling !)

tnx de ng0n.

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        (o o)
-----o00---( )---00o-----
|      fRaNk pAxToN iIi   (816) 361 - 8661      |
|      << voice, message or fax >>              |
|      e-mail: paxton@sound.net                  |
|      web: http://www.sound.net/~paxton          |
```

-----'

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: JCoote@aol.com
Subject: [3953] Stealth Ant (kind of)
Message-ID: <951008202757_119163376@emout06.mail.aol.com>

Yearly our disaster comm group is faced with an unusual situation:

Maintain communications between a high-rise hotel room, a van and a city 300 miles away. The distance is too much for FM and repeaters. We use bands which provide high-angle communications 2, 4 and 7 MHz since we're not going for DX. The vehicle, a large van uses Mobile-Mark helical whips on these three bands, with Hustler KW whips as back-up. The fixed station uses a Barker & Williamson AC 1.8-30 wire antenna, an inverted-vee shaped thing for 1.8-30 MHz

Our stealth antenna was developed for use from a high-rise balcony. I used telescoping sections of seamless aluminum tubing and stainless hose clamps. The tubing was slotted at the ends where the clamps belong. Collapsed, our antenna was about five feet long. Extended to the max, the antenna was about sixteen feet. The aluminum sections were sprayed with a flat gray primer to kill the reflection.

The base of my antenna was U-bolted to a 1" x 6" x 12" plexiglass (or lucite) block which serves as a base insulator and provides several methods of mounting to poles or clamping to solid objects.

The bottom (thickest) mast section is wrapped in electrical tape or shrink tubing to prevent someone on the balcony from touching the antenna, and prevent the antenna from shorting. In our case, we push the antenna through holes in the concrete balcony wall and clamp the antenna base insulator to some metal furniture.

16 feet is not a good radiator for 2-7 Mhz work. I added a roll of #26 gray wire to the tip of the antenna. The wire was weighted just enough to pull it straight and prevent it from flapping in the breeze (windy up there!) too much. The mast is tipped up ten or twenty degrees for strength and resembles a fishing pole and line in shape.

Why not just dangle a wire from the balcony?

Two reasons- the antenna will always work better if you can get it out from the building and people on lower balconies can't grasp the antenna wire.

Electrically, the antenna is a random wire. It just happens to drop down

instead of running horizontally. Ours was worked against a counterpoise of two wire radials zig-zagged around the 15th floor balcony. Our radials were about 25' each.

The total antenna length (mast & wire) varied from 60' to 90'.

Exact antenna length does not matter, but longer wires may cover the lower bands better and may provide more high-angle coverage if a wavelength or more.

Our antenna used an Icom automatic tuner, model AH2 right at the mast base of the antenna. Do not feed this antenna through coax. Other marine/military type random wire/counterpoise tuners will work with this antenna, as well as manual ham tuners if you don't mind going out on the balcony to tune the antenna.

Results?

We cover the van on it's route and the city 300 miles away from the hotel room. On a bad year, conditions deteriorated so much that 160 meter CW was all that worked.

73, Jay
WB6AAM

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: W5HNS@aol.com
Subject: [3947] TEXAS QSO PARTY
Message-ID: <951008175622_119073240@mail06.mail.aol.com>

Since I am new to QRP, I do not know if weekend qso parties are popular with qrp types. Perhaps only to those with vfo rigs.

This year's party is from 1400 utc Oct 21 until 2200 utc Oct 22. Max op time is 24 hours. Suggested freqs are 50 khz up from bottom on CW. SSB - 3850, 7230, 14250, 21350, and 28450. Novice - 3710, 7110, 21110 cw and 28450 ssb.

There is no declared qrp catagory. HOWEVER, the logs will wind up in my hands and if there are enough qrp logs submitted I am certain I can convince my

fellow

TDXS brethren to toss it in. If you are in Texas and can op 40m mobile you will be a hot item. Look for scoring in CQ and QST.

I love this foxhunt thing! 73 Henry W5HNS email: W5HNS@aol.com

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: [3957] W7HPK W7HPK DE NH6IL - JIM?
Message-ID: <Pine.SUN.3.91.951008171126.28697C@kahuna>

(Sorry for the broadcast, folks) =:o

Jim - If you're on please email me @ jeffrey@math.hawaii.edu

(If anyone knows Jim please forward this to him)

QUM

Jeff NH6IL/QRPppppp

ZUT

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: JCoote@aol.com
Subject: [3952] Want FM 24-24 manual
Message-ID: <951008202317_119163160@emout04.mail.aol.com>

I am looking for a copy of FM 24-24. This is a US military field manual which describes a whole array of radio equipment, not a technicians repair manual for a single item.

I've also heard FM 24-25 covers multichannel equipment.

Ideally, I would like to get books or manuals with photos and specs which cover US-NATO radio gear since the 1950's.

I tried the US Govt printing office and no luck.

73, Jay
WB6AAM

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: adam@philadelphia.libertynet.org (Adam O'Donnell)
Subject: [3948] WhiteRook Paddles
Message-ID: <9510082230.AA09063@philadelphia.libertynet.org>

Does anyone have the address/fax number where I can order those
little WhiteRook CW Paddles?

Thanks and 72

--
Adam O'Donnell, N3RCS
Amsat: N3RCS@AMSAT.ORG
Internet: ADAM@LIBERTYNET.ORG

"I want to know how God created this world. I am not interested in this or
that phenomenon. I want to know His thoughts, the rest are details."

-- Albert Einstein

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: Jeff Gold <JMG@tntech.edu>
Subject: [3949] Wilderness Norcal 40A
Message-ID: <01HW7EH30LMA91WSFM@tntech.edu>

All,

guess it is a good month for Radio births here in Tennessee :-)

Promised myself I would really take my time on the new Wilderness
Norcal 40 A. I really was pleased with the super quality boards
and the nice blue cabinet. Got me to thinking in general what
makes a good quality kit. Probably said it before and probably end
up saying it again.. its the building 50% and the operating 50%..
but then time warps come in and the part you end up dealing with
most is how good does it work and how do you enjoy operating it.
Both of these are personal preferences.. so I am making my
PERSONAL preferences clear.

The building part needs to have a very high quality printed
circuit board. I really like plated thru solder masked boards with
unambiguous silk screening. I build two type of things. One from
schematics.. and make ugly projects out of them, or one from a
kit.. try to make those as pretty as possible. When I build from a

kit it is for therapeutic reasons and I really don't enjoy having to spend a bunch of time figuring out what someone really meant by a particular instruction.. and if the board is not drilled or labeled correctly.. shouldn't be shipped. I also enjoy not having to try to guess what part is really been substituted for something else. I like good quality parts and cabinets.

One of the most important aspects of a commercial kit is that if it is built correctly it should work as it is suppose to and not have a finicky oscillator that needs a jump start or any unwanted surprises.

This was the third Norcal 40 I have built. Each one fired up and worked great from the very start.. each was just a little better than the previous. The first one I built.. made the mistake of lending to the only other QRP'er in the area.. he fell in love with it.. had to sell it. bought the second round from the club at the higher price.. and it was still a bargain. I still have it and operate it regularly.. still one of my favorites and even after being forced to sell most of my gear.. it still remains.

Well had a couple of nights of insomnia and next thing I know.. had all the parts on the board Saturday AM. I have to admit.. I get my wife to wind the VFO torroid.. she does needlepoint and each Norcal is right on the money when it comes to the VFO.

The kit requires that you wind torroids, but gives very clear directions on how to do it .. with good pictures and makes clear what the first winding is. I really liked the plastic latches on the case.. I find I usually put the kit together and get it working well..then a day later .. I want to fine tune it and the next etc... it takes about 2 seconds to get the case off and get to the adjustments.

I did two of the suggested mods.. one change of the resistor to lower the sidetone volume and I put a 56pf cap in the VFO to increase tuning range to 7.000-7.060 I noticed absolutely no bad side effects and had no power drop off. My rig puts out a very nice 2 watts (I think maybe one of the torroids I wound in the middle of the night could have been done better :-)

The VFO is VERY stable.

My first QSO was from Cedar Rapids, IA He was 4 watts on a HW9 (doubled my power :-) we spoke for an hour about QRP..that is how I knew this new Wilderness Norcal was blessed.. my favorite QSOs are QRP->QRP and especially when we spend an hour discussing QRP. I now have a whole page of compliments from him to use in an

article I am doing. Got similar compliments from other QSOs

The rig was super simple to align and haven't needed to take the cover off, except to show it off.. GREAT KIT.. GREAT RIG.. well worth the money...

Really love a kit that is fun to build, reduces my stress and then performs like a champ.. PS.. I use VERY small Gel cells to operate it and leave it on for hours at a time.. doesn't seem to eat much.

73,72

Jeff, AC4HF

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: Byron8LCZ@aol.com
Subject: [3942] Re: 40 Meter Beacon
Message-ID: <951008145242_118979778@emout06.mail.aol.com>

Hi Paul,

Havent heard the beacon yet, then again theres a minor solar storm yesterday and today. cant even hear WWV very well, hopefully it will clear up. I'm seeing a S7 to S8 noise level on 40m at 1440z.

Have been having some good luck on 17m lately.

17m is hot around 1430z to 1600z and again from 2130z to 2300z, the times may vary from day to day depending on conditions and sometimes the band doesnt open. but when it does, look out ! I'm worked Sweden, Norway, West Wales, England, Spain, Barbados, Finland, France, Denmark, Luxembourg, Belgium, Cayman Islands, Tunisia in Africa, Germany, Ecuador, Venezuela, Liechtenstein nr Switzerland, Peru, Canary Islands nr Africa, French Guiana S.A., Hawaii. Not bad for 5 watts and a vertical, in 3 weeks. Picked up two new countrys for DXCC and one new state, Hawaii, for WAS.

I have the Sierra up and running on 20m & 40m, worked Wash, S.D. and Saskatchewan on it, running 2 watts out. Am adding a Cmos-3 keyer to it now. those pads and traces are really close together. also thinking of adding a 10 LED S-meter. found some "tiny" LEDs and plan on driving them with a LM3915 Bar graph driver chip, if the current draw isnt excessive. What are you doing for a S-meter on your Classic ? I'm looking for faster response times than i could get from a meter movement.

See you next weekend in the ARCI contest. Are you and Fran entering as a team ?

72, Byron WA8LCZ Detroit

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: Rick Zabrodski <zabrodsk@med.ucalgary.ca>
Subject: [3954] Re: Antenna parts for 80 m
Message-ID: <Pine.SUN.3.91.951008194558.15902A-1000000@ume>

On Sat, 23 Sep 1995, Joseph Cooper wrote:

> >I am trying to locate the parts for the 80-160 meter receive antenna in this
> >months issue of QST.

>

> They say the transformer is wound on a Amidon FB-77-1024

> >coil form and I have had NO luck finding one local.

>

> >>>The best bet is to contact Amidon themselves. They have an excellent

>

I finally got around to reading this article about the low dual fed
triangle type loop antenna for low noise reception on 40 thru 160

I looks interesting and I think I might build one for the fox hunt this
season if the weather holds.

My question: why all the fuss about baluns and relays?

This is an inherently balanced antenna.....why not just feed with
balanced line and tuner in the shack?

BTW I have played with low loops horizontal to the ground (actually, ON
the roof of my bungalow) and have found the signal to noise improvement to
be significant on 80 meters, much like the articles describe. This new
approach suggests even better S/N improvement in a smaller package. It also
seems that for QRP levels it should work just fine if high enough.
(Another reason to use balanced line feeders!)

Dr. Rick Zabrodski BSc, MD, CCFP(E)	*	VE6GK
Clinical Assistant Professor	*	NorCal 519 ARCI 7650 GQRP 8329
Faculty of Medicine, Univ. of Calgary	*	"Power is no substitute for skill"

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995
From: "Mark J. Dulcey" <mdulcey@pryder.pn.com>
Subject: [3937] Re: Curtis keyer chip
Message-ID: <Pine.LNX.3.91.951008114432.2420A-1000000@pryder.pn.com>

On Sat, 7 Oct 1995 Robsparks@aol.com wrote:

> Hi fellows!

>

> I recently purchased a Tentec Century 22 and it has great promise as a QRP
> rig. This rig has the optional keyer board, and the paddles work fine on it
> except the chip does not allow a dit or dah insertion while the other paddle
> is down. This is very frustrating as my other keyer, an MFJ electronic
> keyer, allows this. I need all the help I can get on CW! A while back
> there was a thread on the Curtis keyer chip, and I think someone mentioned
> that the chip could be jumpered somehow to remedy this situation, ie.
> allowing dit/dah insertion while the opposite paddddle is down. I opened the
> case and the chip that seems to do the work on the keyer board is a 16 pin
> dip with the following letters:

>

>

P8412

>

DM7476N

>

> Question: Is this the Curtis keyer chip? If so, which pins can I remove a
> jumper from and replace elsewhere to make it key like the MFJ keyer?

A 7476 is a TTL chip, not a Curtis keyer. (The 8412 part is a manufacturing date code.) I don't know whether the Century 22 uses a Curtis keyer chip or not. If it does, it would be one of the earlier versions, not the 8044ABM which is jumperable, so the only way you could change it would be to substitute a different version of the chip, if you could find one. (Or you could rewire the rig to take an 8044ABM, or build in some other sort of keyer entirely.)

There have been a number of versions of the Curtis keyer chip over the years. The 8043 was the original (non-iambic) model. The 8044 and 8044B differ in how they handle iambic keying (something to do with what happens when you release the paddles at the end -- some people like one style, and some prefer the other, so they offered both). All of the above are 16-pin DIPs. There were also 8044M and 8044BM chips, 18-pin DIPs that also had a speed-meter output. Finally, all of the above were replaced by the 8044ABM, a 20-pin DIP which can be jumpered for either A or B-type iambic keying, and has the speed meter output.

My most recent Mouser catalog lists the 8044 and the 8044ABM. I think all the other versions are no longer available, so if you really want an 8044B, you'll have to find another ham who has a spare.

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995

From: Mike.Czuhajewski@bbs.abs.net (Mike Czuhajewski)

Subject: [3946] Re HW-8 cores
Message-ID: <1995Oct08.174313.15293@abs.net>

An extract from a recent posting by Stuart, K5KVH
(rohre@arlut.utexas.edu), subject: This is Q-Dope --

"OBQRP: ... Over time it has been observed that Heath HW-8(?)
models sometimes have a core shift in characteristics."

[end of quote]

He's quite right about the HW-8 cores shifting. I should know--I'm
the one who broke that news to the QRP community :-). I had an
article in the QRP Quarterly a few years ago, as well as SPRAT, and a
Hints & Kinks item in QST, giving details. The QRP Quarterly had the
first and longest article, and I recently placed the text of it (and
follow-up information from my Idea Exchange column) on the qrp-1 ftp
area at lehigh.edu. Look under

pub/listserv/qrp-1/articles

and the filename is something like badhw8cores.mcq. Info
on some further experiments I did on the subject of cores going bad
is in the article zapcores.mcq.

Here's the basic info: On 80 and 40, the HW-8 uses low permeability
(Ui 40) ferrite cores in the output networks. They can, and DO,
change characteristics, and I currently have ten confirmed cases over
the years. The permeability increases, which raises the inductance of
coils and shifts the tuning point lower in frequency, often out of
the band, and even worse, the Q drops too--losses increase.
The symptom: power output on one or both bands is substantially low
and cannot be brought back to normal by retuning or other fixes.

Living between Washington DC and Baltimore, a major metro area with a
large ham population, I've had the opportunity to play with literally
over two dozen different HW-8s, most handed to me, and some mailed in
from various places around the country. Some were for checking specs
and operation, others for repair. "Typical" power outputs, measured
with a Tektronix 465B 100 MHz scope, are 1.5 to 2 watts on 80, 1 to
1.75 on 40, up to 1.5 on 20 and not a lot more than one watt on 15.
"Your actual mileage may vary." Usually, I'd suspect the cores if
power, after tuning up the rig, is a watt or less on 80 or 40.

The solution is simple--replace them with new cores, wound with the
same number of turns; my article has details. (Amidon has the
proper core material, which is 63 or 67, two types that are

essentially identical; I believe one replaced the other.)

Here's what NOT to do: remove turns to bring the inductance back to where it should be. That does NOT work well, as detailed in my article. While the inductance may go back where it should be, and the output starts coming back up some, the losses remain high. When I tried it I ended up with one of the cores running warm, and that was at only a watt or so. With good cores, the coils do not get warm at all.

On 20 and 15 they used powdered irons, and those do not shift and do not cause the problem. If you have low HW-8 power output on those bands, look elsewhere for the problem--it's not the cores doing it.

Actually, if you want to get picky about it, powdered irons can and do shift just like ferrites, but the effect is far, far less noticeable. That's the subject of some other tests I did with toroids. I zapped some perfectly good cores, both ferrites and powdered irons, by winding several turns on them, charging up a BFC (capacitor of over 10,000 uF) to 5 volts, then touching the leads of the coil to the terminals. I didn't calculate the amount of energy and the flux density, but it's safe to say that it's a humongous overload to the poor magnetic cores! This is known as the Mack Truck Approach.

I measured inductance and Q of all coils before and after zapping. With the ferrites, the difference was dramatic--from my files:

"Next, a good FT37-67 core, a type also used in the HW-8 output nets on both 80 and 40 meters. I put 19 turns of #24 wire on it, and measured 6.19 uH at 7.9 MHz, with a Q of 307. Zapping it with 5 volts from the cap made it jump to 10.97 uH, while the Q plummeted to 45!" Now THAT'S a bad core! Other ferrites showed similar amounts of degradation.

However, on the powdered irons the change was much less dramatic. In fact, if you measured a powdered iron core coil without knowing if it had been zapped or not, you couldn't tell; the changes were so slight that you'd only know if you measured it before and immediately after zapping. I did, and here are the results I recorded:

T50-2: before, 1.74 uH; after, 1.77 uH
T68-2: before, 3.90 uH; after, 3.94 uH
T37-6: before, 0.725 uH, Q 207; after, 0.728 uH, Q 194
T50-6: before, 2.18 uH, Q 210; after, 2.21 uH, Q 208

If you looked at any of the cores in the "after" state, they would

appear perfectly normal since those values are all quite typical and "normal". Anyone who is at all familiar with toroids and how finicky they are with regard to changing inductance when the turns are spread or compressed slightly knows that you can get the variation of inductance above just by staring at them hard!

Could you restore the cores to their original state? I tried one method (heating to several hundred degrees on a soldering iron tip and letting it cool), but it didn't work for me. There was a discussion thread on qrp-l quite a few months ago about restoring magnetic cores, and a number of people presented methods that they had used at work. I haven't tried them, and do not know if they also bring the losses back to normal.

GETTING THE ARTICLES

If you want to retrieve those 2 articles (totalling about 10 pages of ASCII text) from ftp.lehigh.edu, they are under "articles" in the qrp-l subdirectory, and the filenames are:

badhw8cores.mcq
zapcores.mcq

If you only have e-mail and no ftp capability you can still get the files via e-mail request. Here are directions on doing that, quoted from the message you all got when you first subscribed to qrp-l at lehigh.edu:

"All files are also available via e-mail from the list server. To obtain an index of all files use the command: INDEX QRP-L -ALL. To retrieve a file via e-mail, send the command:

GET filepath filename

where "filepath" is the path as shown by the INDEX command, and "filename" is the name of the file you want. Note that the file is sent in UUENCODE format if it is a binary file."

Here's a hint--don't do the INDEX just like that or you'll get a VERY long index containing EVERYTHING under qrp-l. Instead, do a shorter one like this:

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index qrp-l/articles -all
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and you'll get e-mail back with an index of just the articles subdirectory--much shorter and far easier to see what's available.

And here's how to request the articles--send e-mail to

listserv@lehigh.edu, and in the text say

get qrp-1/articles zapcores.mcq [or whatever article]

And if there is a .Z at the very end of the filename, such as zapcores.mcq.Z, disregard that and do not include it in the filename or you will get an error message back. (And while you're at it, you might see some other articles of interest, both in the 'articles' and 'reviews' directories, by myself and others. Mine were previously published in the QRP Quarterly.)

73 and Queue Our Pea DE WA8MCQ

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Mike Czuhaiewski, user of the UniBoard System @ abs.net

E-Mail: Mike.Czuhaiewski@bbs.abs.net

The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA

Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995

From: N5EM@aol.com

Subject: [3941] Re: Narrowing the bandwidth?

Message-ID: <951008141449_39295626@emout05.mail.aol.com>

In a message dated 95-10-07 23:27:51 EDT, you write:

>For me, the greatest part of this list is the diversity of people and ideas
>that appear, as well as the many off-the-wall things that turn out to be
>pending projects. This is better than a bull session anytime.

>

>72, de Roger, AA7QY

>

>

>

Amen, Roger. I love the list. It does what I could not possibly otherwise do, shoot-the-bull with QRPers over the entire world about ideas of common interest. As much as I like operating, it does not replace the "face-to-face" exchange of ideas.

But, having said that, there are a couple of items everyone should thoughtfully consider.

READ THE SUBJECT LINE. If your ideas change the subject, change the subject line. I personally use the subject line to decide what to read and what to delete, sight unseen. For example, I do not have time now to chase the fox.

So, if it says "fox" in the subject line, its gone. Likewise, is a thread seems to be going in a direction that doesn't interest me, or seems to have been talked out, I quit opening them. So, if I miss a valuable gem, its my fault. But, try not to embed a "valuable gem" about something in your fox report.

Remember, many editors do not give us any hint about who you are without your signature line. At least provide you name, call (if you have one) and EMAIL address. (You'd be amazed how some firewalls scramble your address). I also like to know your QTH. On the other hand, please don't quote a chapter from War and Peace, even if it has some pertinent philosophical concept about QRP operating.

There needs to be personal compromise between what I want and what the group wants. Some folks want the traffic kept to a minimum for various reasons.

Others want do contemplate their QRP navel and discover the meaning of life.

(The older you get, the more you like this). I don't get free internet access. I pay (as little as possible) to be on the list and feel that, largely, it is fine just like it is. Never hurts to ponder anew how we use it, though.

Keep those valuable bits streaming this way.

72 from Houston, Texas

Ed Manuel, N5EM

n5em@aol.com

(Place holder for a valuable bit of philosophy - and still a modest signature line :-))

From qrp-1@lehigh.edu Mon Oct 9 11:35:00 1995

From: JessQRP@aol.com

Subject: [3951] Re: rockloop - will it tune 40m ?

Message-ID: <951008192614_39474459@mail06.mail.aol.com>

I have a loop right now that is 12 feet of #12 wire suspended in a PVC frame. I used a GAMMA match instead of a transformer and it WILL tune 20-30-40 meters with a 100 pf cap. To use a gamma match, don't split the loop at the transformer side, and solder a piece of #12 wire 15 inches long to the loop 15 inches down from where the transformer would be. Solder the ground of the coax to the place where the transformer would be and then solder the 15" "pigtail" to the center conductor. Allow about 1 inch of space between the

matching stub and the loop. Connect a rig and adjust on receive for maximum signal or noise on receive. Transmit into the loop at LOW power and tweak the cap for low SWR. There is a great deal of hand capacitance (sp) change in the tuning so patience is required. After tuning for the lowest SWR possible, adjust the distance from the gamma match pigtail to the loop wire for the lowest possible reading. After adjusting the SWR at the match, fix in place with electrical tape or what have you.

With mine configured with 12 feet of #12 wire stripped from three conductor Romex 12-2 and a 15 inch gamma match, using a 100 pf air variable, I am able to tune all of 20 and 30 and 40 meters. Contacts have been made on all three of these bands. There needs to be a mechanical "remote tuner" kooked up to the cap like a long non-conductive stick or something, as the hand capacitance effect really is annoying.

GL es Best
Jess N0TFI